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EXAMINER

RAEVIS, ROBERT R.

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/853,016

Applicant(s)
Heilenkötter

Examiner
Robert Raevis

Art Unit
2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:

- ☒ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 20) ☐ Other:

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lindeman.

Lindeman teaches a method to test aging of a lubricant which lubricates two elements 44, 50 arranged to transmit a torque when engaged. The variation of the coefficient of friction is determined "with time" (col. 1, line 11), and testing is carried out of a "wide range of test conditions" (col. 1, lines 21-22), including temperature, rubbing speed and load. Measurements of coefficient of friction are made, and compared with prior measurements "with time" (col. 10, lines 27-28), a comparison of which permits for a determination of state of the lubricant..

Lindeman does not use the phrase "slip characteristics of said pair of frictional coupling elements".

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As to claim 1; as the coefficient of friction is a characteristic of slip, the coefficient of friction may be deemed to be a “slip characteristic”.

As to claims 2, 4 and 5; note Lindeman’s reference to “temperature” (col. 1, lines 23-24; and col. 9, lines 5+), and “loading” (col. 1, line 23), with comparison being made “with time” (col. 10, lines 27-28).

4. Claims 3, 6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindeman.

As to claim 3; different “rubbing speed” and “loading” (col. 1, line 23) suggest known torque.

As to claims 6 and 10; the “observations” (col. 10, line 27) are made to determine fatigue “with time”, suggestive of a determination when a lubricant passes the threshold from acceptable to fatigued. As observation of such passing (from a display) suggests a signal to an operator of the equipment.

As to claims 8, 9; all of the numerical determinations/comparisons made within Lindeman naturally suggest determinations/comparisons within a common place computer unit to reduce operator necessity.

5. Claims 1-5 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Thelen.

Thelen teaches a method to test aging of a lubricant which lubricates two elements 6, 7 arranged to transmit a torque when engaged. The variation of the coefficient of friction with

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ageing is determined, and testing is carried out over a range of temperatures (col. 2, lines 30-35), load and slipping (Figure 3).

Thelen does not use the phrase “slip characteristics of said pair of frictional coupling elements”.

As to claim 1; as coefficient of friction is a characteristic of slip, the coefficient may be deemed to be a “slip characteristic”.

As to claims 2, 4 and 5; note Thelen’s reference to “temperature” (col. 2, lines 30-35) and “loading” (col. 4, lines 38-43), with the goal of testing aging (ABSTRACT).

As to claim 3; note Thelen’s reference to a “regulated” (col. 2, line 56) torque.

6. Claims 6, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thelen.

As to claims 6 and 10; measurements are made to determine test aging processes in a laboratory, suggestive of a determination when a lubricant passes the threshold from acceptable to fatigued. As observation of such passing (from a display) suggests a signal to an operator of the equipment.

As to claims 8, 9; all of the numerical determinations/comparisons made within Thelen naturally suggest determinations/comparisons within a common place computer unit to reduce operator necessity.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kajdas et al test over different temperatures and pressures.

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Litz et al utilize slip to test lubricants.

8. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Raavis whose telephone number is (703) 305-4919. The fax phone number for the organization where this application or proceeding is assigned is (703) 208-7722.

Raavis

Examiner